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NEW BEDFORD HARBOR

SUPERFUND SITE

February 1986

INTRODUCTION

This fact sheet provides an update on studies being conducted at the New Bedford Harbor Superfund Site in New Bedford, Massachusetts. The harbor sediments are contaminated primarily with polychlorinated biphenyls (PCBs) and heavy metals. The areas of highest concentration, referred to as "hot spots," are located primarily in the Acushnet River Estuary, north of the Coggeshall Street Bridge. The Army Corps of Engineers is evaluating dredging and disposal cleanup options for the PCB "hot spot" areas. The Corps of Engineers study will not repeat work done in EPA's previous studies, but instead will provide more detailed information on the potential impacts of dredging and disposal in New Bedford Harbor. This new information will be part of a focused feasibility study (FFS) and will be released for public review and comment.

In addition to the FFS, a more comprehensive study, called a remedial investigation/feasibility study (RI/FS) is being conducted by EPA and its contractors. The remedial investigation will define the extent of contamination throughout the entire harbor. The feasibility study will evaluate alternatives for long term cleanup. An endangerment assessment is also underway to determine the potential risks to public health and the environment which could result from exposure to contaminants at the site. While these studies are underway, EPA continues enforcement action seeking to recover past and future costs for cleanup of the New Bedford Harbor Site.

Focused Feasibility Study

Considerable fieldwork was conducted last fall by the U.S. Army Corps of Engineers as the first part of a study of the potential impacts of the dredging and disposal cleanup alternatives for the PCB "hot spot" areas:

- Sample locations were selected and approximately 180 deep sediment core samples were taken from the hot spots.

- Chemical and physical analyses have been performed at over 30 of these 180 locations. The purpose of these analyses is to define the depth of contamination and to obtain physical and chemical data for the design of a representative sample. The Corps of Engineers will perform laboratory tests on this representative sample to evaluate the feasibility of dredging and disposal.

- The representative sample will be collected in mid-March by the Corps of Engineers.

- Contaminant migration studies were started to evaluate the impacts of various dredging alternatives.

A detailed study is being conducted by NUS (contractor to EPA) to rank numerous possible sites within or along the Acushnet River Estuary and New Bedford Harbor as to their suitability for the safe disposal of contaminated sediments without causing negative impacts on public health, the environment and land use value. This is being done because it is likely that the disposal site for any dredged sediments would be located near the water, and because public comments were expressed against the Acushnet/Fairhaven shoreline location proposed in an earlier study.

Overall RI/FS

The overall remedial investigation (RI) is ongoing and the following RI work has been completed:

- Over 1,200 samples of water, sediments, fish, lobster and other organisms have been collected from the Acushnet River Estuary, New Bedford Harbor, and Buzzards Bay during the last two years.

- Analysis of these samples has begun and should be completed in the summer of 1986. The data, as it becomes available, will be used to determine the levels of contamination present and to validate and test a computer model developed by Battelle and Hydroqual Laboratories for EPA. The purpose of this model is to predict the fate, transport and distribution of PCBs and heavy metals in the sediments and living organisms of the New Bedford Harbor and parts of Buzzards Bay. Once the model is tested, it will be ultimately used by EPA to predict the long-term effects of different cleanup options on the PCBs and heavy metal contaminant levels in the harbor and in the fish.

- Based on the results of field studies by Woods Hole during Hurricane Gloria and other weather conditions, changes to the model computer were found to be necessary. These were incorporated into the computer model, increasing its accuracy.

- Preliminary assessments of potential PCB contamination at the New Bedford Municipal Landfill and at approximately 30 other sites in the New Bedford area were recently completed.

- Air samples were collected from several locations around the Acushnet River Estuary in September 1985. They are being tested for PCBs and metals.

- As part of the overall RI/FS, NUS is currently collecting sediment samples from about 180 locations in the inner and outer harbor south of the Coggeshall Street Bridge. The samples will be tested for PCBs and metals to better understand the extent and depth of contamination in these areas. This sampling program was designed to parallel the field sampling conducted by the Corps of Engineers in the hot spot area. The NUS sampling was completed in mid-February.

- Analysis of these sediment samples will be done this winter; initial laboratory results are expected in March or April.

- Woods Hole will proceed in March with additional data collection on tides, currents, and other processes in the inner harbor to provide necessary information for the computer model.

- Ongoing studies at Sullivan's Ledge indicate the presence of toxic contaminants. EPA has listed this site on its National Priorities List as separate from the New Bedford Harbor site. A full Remedial Investigation and Feasibility Study is in progress. A separate Fact Sheet will be issued for the Sullivan's Ledge Site.

Enforcement

The U.S. Department of Justice filed suit in December 1983, under the Comprehensive Environmental Response, Compensation and Liability Act ("Superfund"). The government seeks past and future expenses incurred by the U.S. Environmental Protection Agency, the National Oceanic and Atmospheric Administration, the U.S. Coast Guard and other agencies to study and clean up PCB contamination in New Bedford Harbor. The suit was filed, along with a companion suit filed by the Commonwealth of Massachusetts, against six corporations connected with the two capacitor manufacturing plants on the Acushnet River in New Bedford.

GCA Corporation (contractor to EPA) will conduct an Endangerment Assessment (EA) of the current potential health and environmental threats from contamination at the site. The EA will support ongoing litigation as well as the remedial investigation. A work plan for the Endangerment Assessment will be finalized in March and the project will start as soon as funds are available.